

ASAP

Work Order ID 135009

135009

Item ID: D4039-3 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Aft Bracket
Start Date: 7/23/2015 Start Qty: 2.00 *2* Cust Item ID:
Required Date: 8/7/2015 Req'd Qty: 2.00 *2* Customer:
Reference:

Approvals: Process Plan: SH Date: 20150723 Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4039	B								

100
100
Waterjet
FLOW CNC Waterjet
Memo
Cut blank as per file D4039-3_BLANK
0.00
0.00
(2) 15/08/05

110
110
HAAS 1
HAAS CNC vertical machine #1
Memo
MACHINE AS PER FOLI FA881 AND DWG
FOLIO REV: AA
DWG REV: B
DEBURR
0.00
0.00
2 0 DAS 40 15/08/20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

July 23, 2015 3:19:26 PM

Page 2

Accept

Setup Start *NS1*

Stop *NS2*

Start Date: 7/23/2015 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 8/7/2015 **Req'd Qty:** 2.00 ***Q***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** ***NR1***
 QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

DAS
40
9-89

15/08/20

130

0.00

130

QC

Memo

0.00

Quality Control

**DAS
20
9-89**

20 15-08-20
9-89

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

2015820. DAS 34 30

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 135009

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135009

Page 3

Item ID: D4039-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Bracket
 Start Date: 7/23/2015 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 8/7/2015 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Powdercoat Powder Coating	<i>M 131845</i> White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo	0.00 START: 9:30 0.00 OVEN. T: 300° FINISH: 10:00						<i>2 φ 158-21</i>	<i>238</i>
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00						<i>(2)</i>	DAS 38 9-89 AUG 21 2015
170 *170* Packaging Packaging	Identify as per dwg & Stock Location <i>GA</i> Memo <i>W/O 134792</i>	0.00 0.00						<i>2x</i>	<i>15/08/24</i> DAS 36 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :																							
Misidentified ☐	Past Due ☐																								

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Page 4

Accept

Setup Start

NS1

Stop

NS2

Start Date: 7/23/2015 **Start Qty:** 2.00

~

Cust Item ID:

Required Date: 8/7/2015 **Req'd Qty:** 2.00

~

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID**Tool #**

Plan Code

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

ML5 AUG 24 2015

20150824

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

July 23, 2015 3:19:31 PM

Page 1

Work Order ID: 135009

135009

Parent Item: D4039-3

D4039-3

Parent Item Name: Aft Bracket

Start Date: 7/23/2015

Required Date: 8/7/2015

Start Qty: 2.00

Required Qty: 2.00

Comments:

Ipp Rev:A New Issue 09-12-15 JLM Verified By:EC
B:AS PER ECN 10-563 10-09-28 JLM VERIFIED BY:DD

IPP REV

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.000X15.00 0		Purchased		No		100	f	31.5000	3	6.315789			

M6061T6B1 000X15 000

6061-T6 Bar 1.00 x 15.00

**

02/15/08/05

Location

Loc Qty

Loc Code

MAT

31.5

m132360

9

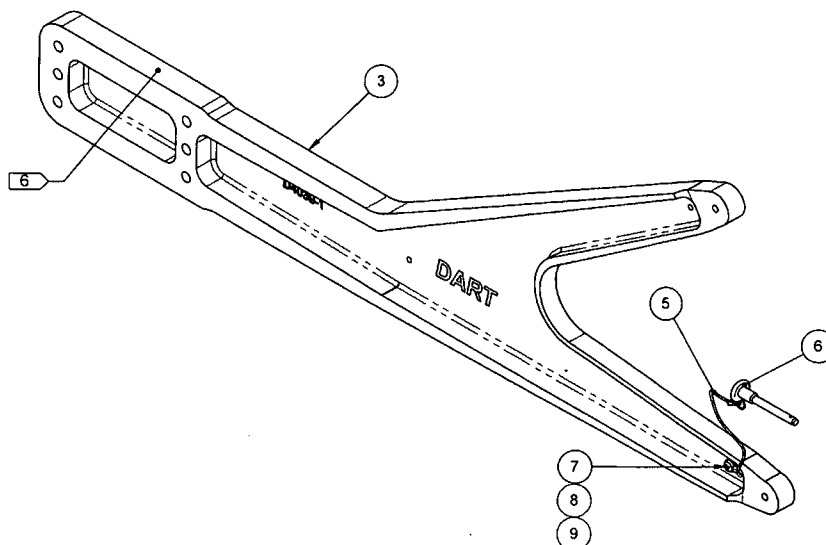
m132773

22.5

132894

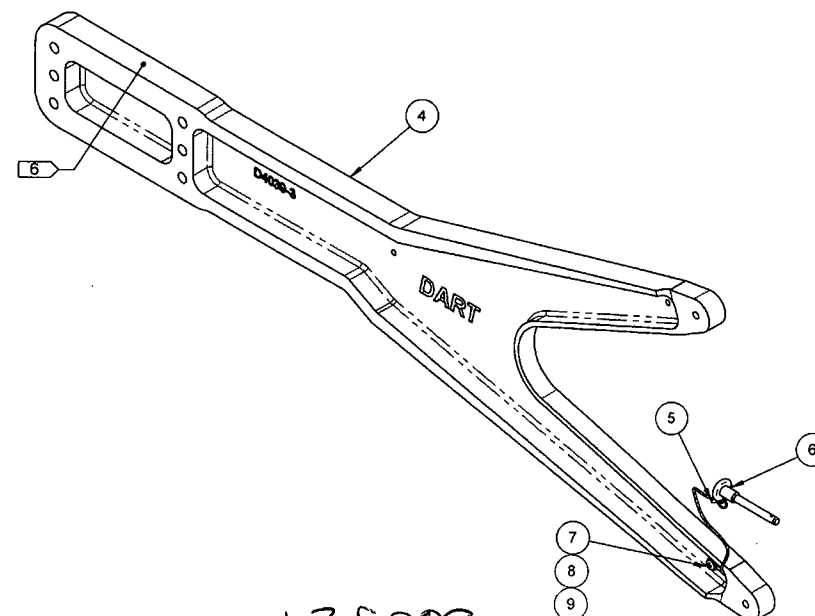
6.3

ITEM NO.	QTY. -041	QTY. -043	PART NUMBER	DESCRIPTION
1	X		D4039-041	FWD BRACKET ASSEMBLY
2		X	D4039-043	AFT BRACKET ASSEMBLY
3	1		D4039-1	FWD BRACKET
4		1	D4039-3	AFT BRACKET
5	1	1	D2690-6	LANYARD
6	1	1	BLRS-010	PIP PIN
7	1	1	MS27039-1-11	SCREW
8	1	1	MS21042L3	NUT
9	3	3	NAS1149D0363J	WASHER



D4039-041 FWD BRACKET ASSEMBLY

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 - 7) WEIGHT: N/A



D4039-043 AFT BRACKET ASSEMBLY

B	REVISE HOLE SIZE ON D4039-3 FROM 0.191 TO 0.203, ZN	10.04.28
A	NEW ISSUE	HS 09.12.14
REV.	DESCRIPTION	BY DATE
DESIGN		
DRAWN		
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	10.04.28	

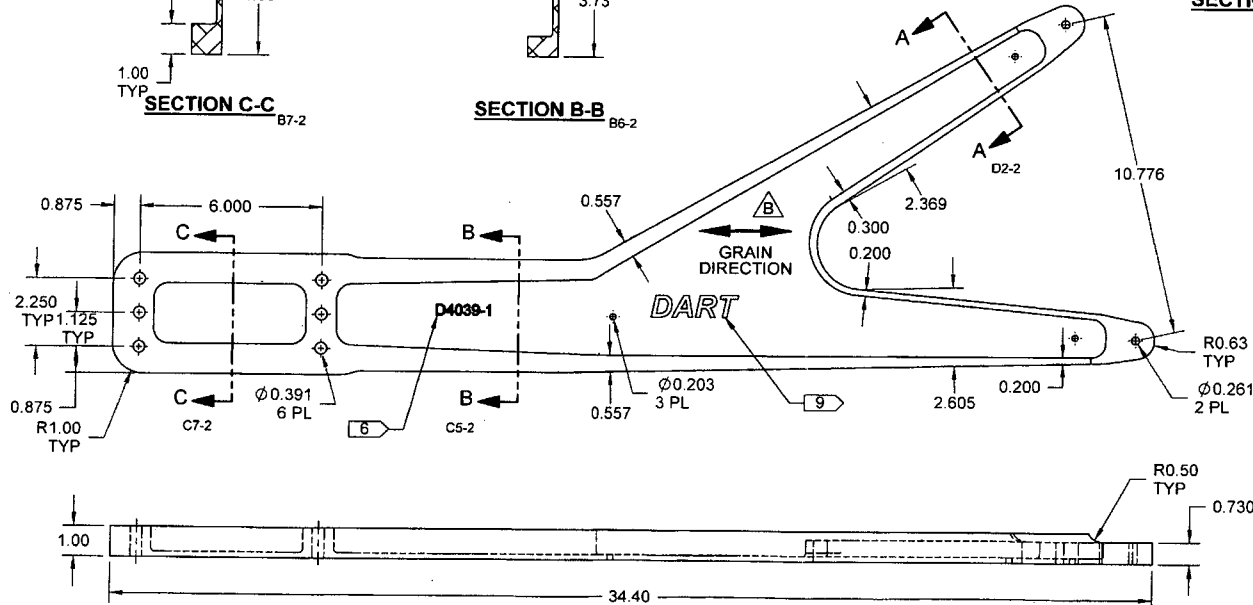
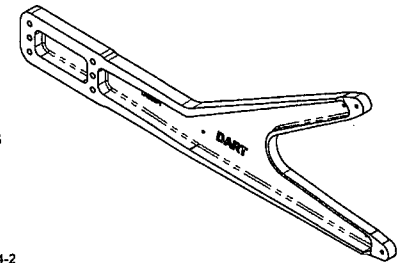
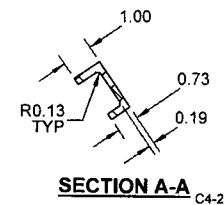
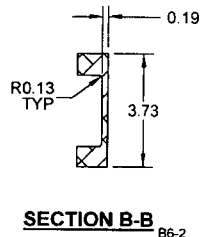
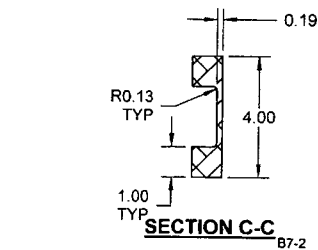
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4039** REV. B
SHEET 1 OF 3

TITLE **BRACKET** SCALE NTS

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RELEASED
2010-09-37



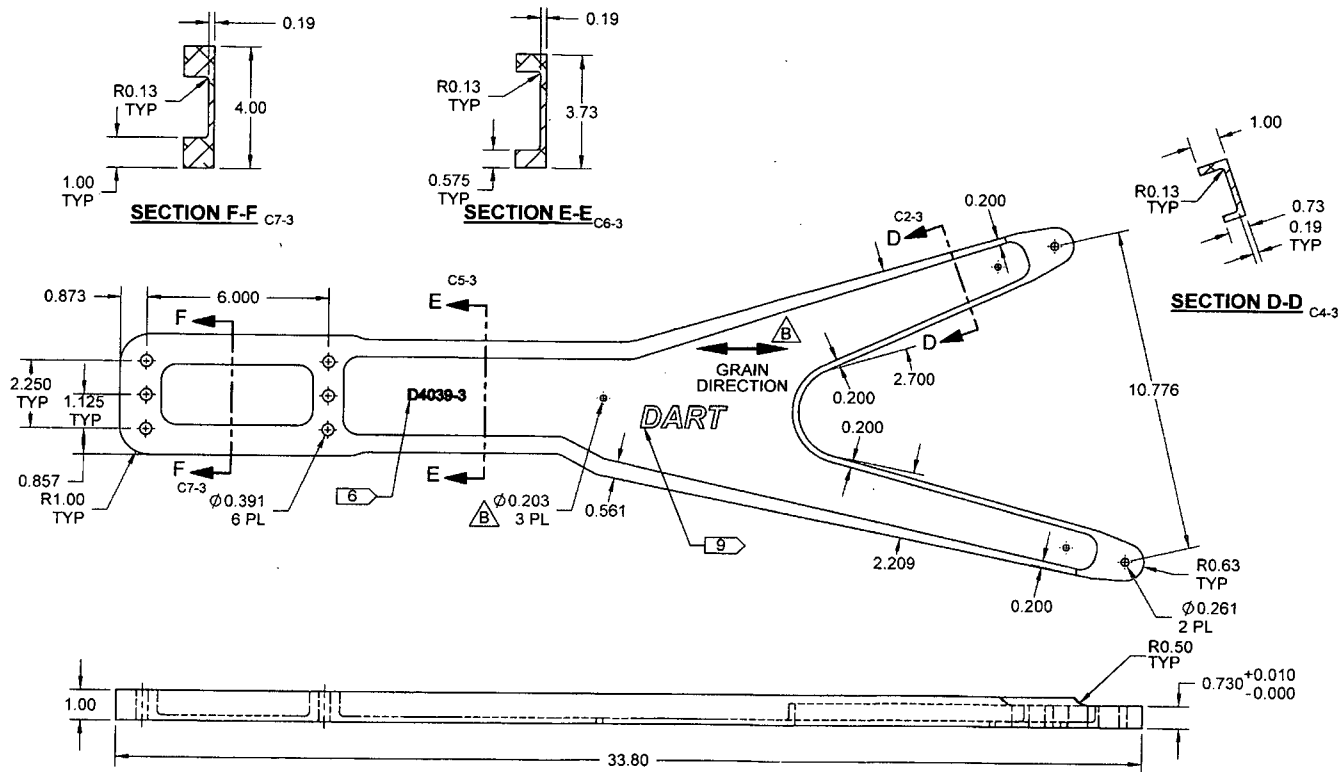
D4039-1 FWD BRACKET

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 1.000 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC M6061T6S1.000
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AND BATCH NUMBER IN THIS AREA TO MAX
DEPTH OF 0.010 WITH MIN TOOL RADIUS OF 0.010
- 7) WEIGHT: 6.64 lbs
- 8) MACHINE PER DART SOLIDWORKS PART "D4039-1_REV.B.SLDPRT"
- 9) ENGRAVE DART LOGO IN THIS AREA TO MAX DEPTH OF 0.015 WITH MIN TOOL RADIUS OF 0.250

RELEASED
2010-09-27

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D4039	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	10.04.28	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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D4039-3 AFT BRACKET

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 1.000 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC M6061T6S1.000
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AND BATCH NUMBER IN THIS AREA TO MAX
DEPTH OF 0.010 WITH MIN TOOL RADIUS OF 0.010
- 7) WEIGHT: 6.23 lbs
- 8) MACHINE PER DART SOLIDWORKS PART "D4039-3_REV8.SLDPRT"
- 9) ENGRAVE DART LOGO IN THIS AREA TO MAX DEPTH OF 0.015 WITH MIN TOOL RADIUS OF 0.250

RELEASED
2010-09-23

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D4039	REV. B
MFG. APPR.		TITLE BRACKET	SHEET 3 OF 3
APPROVED		SCALE	NTS
DE APPR.		COPYRIGHT © 2009 BY DART AEROSPACE LTD	
DATE	10.04.28	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

DART AEROSPACE LTD		Work Order:	135009
Description: Fwd Bracket		Part Number:	D4039-3
Inspection Dwg: D4039 Rev: B			Page 1 of 1

[illegible]

Rev	Date	Change	Revised by	Approved
A	10.06.08	New Issue	KJ	
B	11.06.21	Dimensions updated per Dwg Rev B	KJ	
C	12.06.21	Dimension 0.857 revised	KJ	